B&R Revision information (17.10.2019) Technology Package GMC 5.5.3

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Important Information

GmcArncGrp Important Information
ID#564330 : Important Information

GMC libraries versions 5.2.0 or higher can be used for SG4 ARM target systems

The following libraries are available for ARM target systems:
- GmcManager
- GmcArncGrp
- GmcGrpAPI

Note:
For ARM target systems with a Cortex A8 core (e.g. C30), these libraries cannot be used.

Version 5.8.1
GmcGrpAPI 5.8.1
ID#400264556 : solved problem, solved since 5.8.1
Cycle time violation by function block MC_GroupReset

When executing MC_GroupReset, there was an increased processor load if a large number of unread errors were present. A maximum of 100 error entries are now stored and can be read out with function block MC_GroupReadError. Entry number 100 indicates that errors have been lost (warning: 2153775165).

Version 5.4.0
GmcArncGrp 5.4.0
ID#400248413 : solved problem, solved since 5.4.0
Control characters in logbook entries

It was possible that HTML control characters could not be resolved by the event log.

GmcGrpAPI 5.4.0
ID#400257169 : solved problem, solved since 5.4.0
Not supported function blocks removed

The following not supported function blocks removed:
- MC_BR_ConditionalStop
- MC_BR_GroupJogVelocity_15
- MC_BR_OnlinePathInfluence_15

Version 5.3.0
GmcArncGrp 5.3.0
ID#400242084 : solved problem, solved since 5.3.0
MC_BR_GroupPower: C++ exception

If an axis of the axis group had an unacknowledged error and function block MC_BR_GroupPower was enabled, it could lead to a C++ exception.

Version 5.2.1
GmcGrpAPI 5.2.1
ID#582970 : solved problem, solved since 5.2.1
Error message for MC_GroupInterrupt

Error message "No path-controlled movement active" could be reported even though the CNC program is active.

Version 5.2.0
GmcArncGrp 5.2.0
ID#564315 : new function since 5.2.0
GMC libraries for SG4 ARM targets
GMC libraries versions 5.2.0 or higher can be used for SG4 ARM target systems.
The following libraries are available for ARM target systems:
- GmcManager
- GmcArncGrp
- GmcGrpAPI

Note:
For ARM target systems with a Cortex A8 core (e.g. C30), these libraries cannot be used.

ID#574955: solved problem, solved since 5.2.0
OptMot: Taking into account the axis factor for slave axes
When configuring the optimizer, the axis factor of slave axes was configured with 1. This is now set depending on the configured transformation units and axis type.

GmcGrpAPI 5.2.0
ID#560975: solved problem, solved since 5.2.0
MC_BR_MoveProgramExt: Incorrect status on program restart
If a program was restarted without existing restart data, that data is missing was entered in the logbook and state "Done" was reported to the function block instead of state "Error".

ID#557100: solved problem, solved since 5.2.0
Program interrupt shortly before program end
If function block MC_GroupInterrupt was called shortly before the end of a program, error message "No path-controlled movement active" was possible.

Version 5.1.0
GmcArncGrp 5.1.0
ID#556840: solved problem, solved since 5.1.0
Transformation error when switching on axis group
Depending on the CPU load, various transformation errors were possible when switching on the axis group.

GmcManager 5.1.0
ID#400219288: solved problem, solved since 5.1.0
Incorrect element name for enumerator "MCUnloadProgramModeEnum"
Enumerator "MCUnloadProgramModeEnum": Corrected "mcPGR_ALL" to "mcPRG_ALL".

Version 5.0.1
GmcArncGrp 5.0.1
ID#400219264: solved problem, solved since 5.0.1
Error behavior of MC_BR_GroupAxisJogVelocity if software limits disabled for transformation
Disabled software limits for transformation sometimes caused unexpected behavior when jogging coordinate system mcACS or mcJACS.

Version 3.18.2
GmcArncGrp 3.18.2
ID#544925: solved problem, solved since 3.18.2
Tracking: Synchronization movement not started
If function block MC_BR_TrackObject is called with BufferMode = mcABORTING, the subsequent synchronization command (e.g. MO_MoveLinearAbsolute_N) was not taken into account.

ID#544880: solved problem, solved since 3.18.2
Tracking: Incorrect orientation of product coordinate system
With certain orientation combinations of the conveyor belt system and object coordinate system, it was possible that the orientation of the product coordinate system was calculated incorrectly.
Possible page fault using function blocks with input "Enable"

A page fault sometimes occurred if function block input "Enable" was reset in the same cycle that the system reported an error.

**Version 3.18.0**

**GmcArncGrp 3.18.0**

ID#532640 : new function since 3.18.0

New coordinate system: Tool coordinate system (TCS)

The tool coordinate system (TCS) is supported by the following function blocks: MC_BR_GroupAxisJogAbsolute, MC_BR_GroupAxisJogRelative, MC_BR_GroupAxisJogVelocity, MC_BR_GroupLogAbsolute_N, MC_BR_GroupLogRelative_N, MC_MoveDirectAbsolute_N, MC_MoveDirectRelative_N, MC_MoveLinearAbsolute_N, MC_MoveLinearRelative_N

ID#525660 : Information valid since 3.18.0

General EventLog ID at end of internal methods

Modification: Individual EventLog IDs are no longer entered at the end of internal methods from the library. Instead, the same EventLog ID with different additional data is entered in the EventLog system.

ID#525505 : Information valid since 3.18.0

General EventLog ID when calling function blocks

Modification: Individual EventLog IDs are no longer entered when calling function blocks from the library. Instead, the same EventLog ID with different additional data is entered in the EventLog system.

ID#400217513 : solved problem, solved since 3.18.0

MC_BR_TrackObject in combination with ST-MX program

If a synchronized movement is started by an ST-MX program, the tracking process is not started.

**GmcGrpAPI 3.18.0**

ID#525420 : Information valid since 3.18.0

General EventLog ID when calling function blocks

Individual EventLog IDs are no longer entered when calling function blocks from the library. Instead, the same EventLog ID with different additional data is entered in the EventLog system.

ID#538970 : solved problem, solved since 3.18.0

Function block not restarted with input "Execute"

The function block is not re-executed if function block input "Execute" is set in the same cycle in which the function block sets status output "Done".

ID#534835 : solved problem, solved since 3.18.0

Tool number not set is recording restart active

If operating mode "mcOM_SAVE_RESTARTDATA" is enabled, parameter "ToolNumber" of function block MC_BR_SetToolTable was not used.

**Version 3.17.1**

**GmcArncGrp 3.17.1**

ID#525030 : solved problem, solved since 3.17.1

Task class for GMC-internal axis control

The task class for GMC-internal axis control is now set based on the task class set for Arnc0man.

ID#400210280 : solved problem, solved since 3.17.1

MC_BR_GroupAxisLogVelocity: Incorrect direction for ncROTARY + ncSHORT_PATH

When jogging an axis of type ncROTARY with property ncSHORT_PATH, it was possible that the axis moved in the negative direction although a command for the positive direction was issued (and vice versa).
GmcGrpAPI 3.17.1
ID#400210628 : solved problem, solved since 3.17.1
Error executing commands in high-speed task classes
If function blocks are called in a high-speed task class than the one in which GmcArncGrp was being processed, then internal error "Unexpected error" can occur in certain cases.

Version 3.17.0
GmcArncGrp 3.17.0
ID#519170 : solved problem, solved since 3.17.0
Incorrect starting position possible when restarting block number
If the same block number is used in the initialization subroutine or WS routine as in the main program, restarting this block number may have resulted in an incorrect starting position.

ID#516905 : solved problem, solved since 3.17.0
Incorrect line number after program end
An incorrect line number was sometimes displayed at the end of a program at the "ProgramInfo" function blocks.

Version 3.16.1
GmcArncGrp 3.16.1
ID#517880 : Information valid since 3.16.1
Version dependency to TRF_LIB 3.16.1
Version dependency to TRF_LIB from 3.16.1 to 3.16.9
ID#400205706 : solved problem, solved since 3.16.1
Error behavior of MC_BR_GroupAxisJogVelocity with mechanical couplings
In severe cases, movements were no longer possible and output "WorkspaceEnd" was set by mistake.

ID#400201466 : solved problem, solved since 3.16.1
Software end position error when using MC_MoveDirectRelative_15
When using coordinate system mcACS, a software limit error was possible although the programmed end position was within the permitted range.

ID#400199019 : solved problem, solved since 3.16.1
Disabling single-step mode on active M0 stop
Disabling single-step mode while an M0 stop is active causes the stopped program to resume execution without waiting for an additional continue command.

Version 3.16.0
GmcGrpAPI 3.16.0
ID#400194560 : solved problem, solved since 3.16.0
Logbook entry if function block not supported
If a function block is called that is not supported before the implementation of the axis group, then a logbook entry is generated in addition to the error ID.

Version 3.15.1
GmcArncGrp 3.15.1
ID#505905 : Information valid since 3.15.1
Support for German ARNC0 error texts
GmcArncGrp supporting German ARNC0 error texts for EventLog
ID#505180 : solved problem, solved since 3.15.1
MC_BR_GroupGetData_ARNC: Incorrect data on user structure
Incorrect data is copied to the user structure if function block MC_BR_GroupGetData_ARNC is used with data source "mcARNC_DATA_SRC_OPTMOT_MONITOR".

ID#504410: solved problem, solved since 3.15.1
RecordID zero in ARNC0 error messages
Function block MC_GroupReadError returns RecordID or zero in ARNC0 error messages.

Version 3.15.0

GmcArncGrp 3.15.0

ID#500830: new function since 3.15.0
New function block MC_BR_MFunctionGroup_ARNC
Function block for setting and reading ARNC0-specific M-code groups.

ID#500780: new function since 3.15.0
New function block MC_BR_ZeroPointTable_ARNC
Function block for setting and reading ARNC0-specific zero point tables.

ID#499710: new function since 3.15.0
New function block MC_BR_GroupGetData_ARNC
Function block for reading ARNC0-specific data.

ID#400183726: new function since 3.15.0
Acceleration and deceleration ramps when jogging
The acceleration and deceleration ramps were swapped when jogging in the negative direction.

ID#491490: solved problem, solved since 3.15.0
Initialization subroutine not executed if restart data recording enabled
The initialization subroutine was not executed if operating mode "mcOM_SAVE_RESTARTDATA" was enabled.

ID#400192555: solved problem, solved since 3.15.0
Optimized computing time
The computing time necessary when starting a CNC program has been reduced.

ID#400184428: solved problem, solved since 3.15.0
Libraries compatible with event log system
GMC libraries now support the event log system.

GmcManager 3.15.0

ID#513915: Information valid since 3.15.0
Version number adapted to Motion Software (ACP10, ARNC0)
3.15.0 is the next version after 0.69.2.

GmcGrpAPI 3.15.0

ID#514190: Information valid since 3.15.0
Version number adapted to Motion Software (ACP10, ARNC0)
3.15.0 is the next version after 0.69.2.